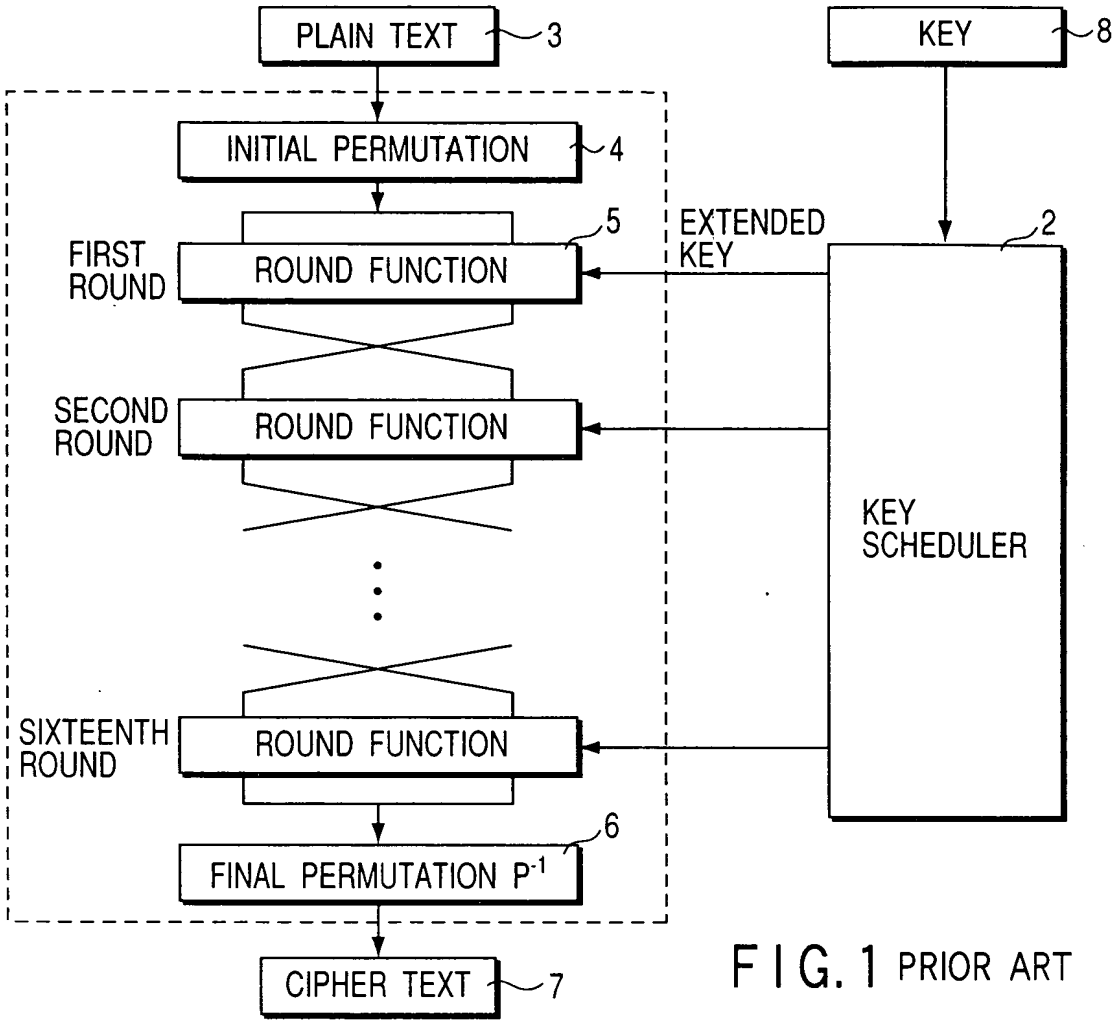


FIG. 1 PRIOR ART

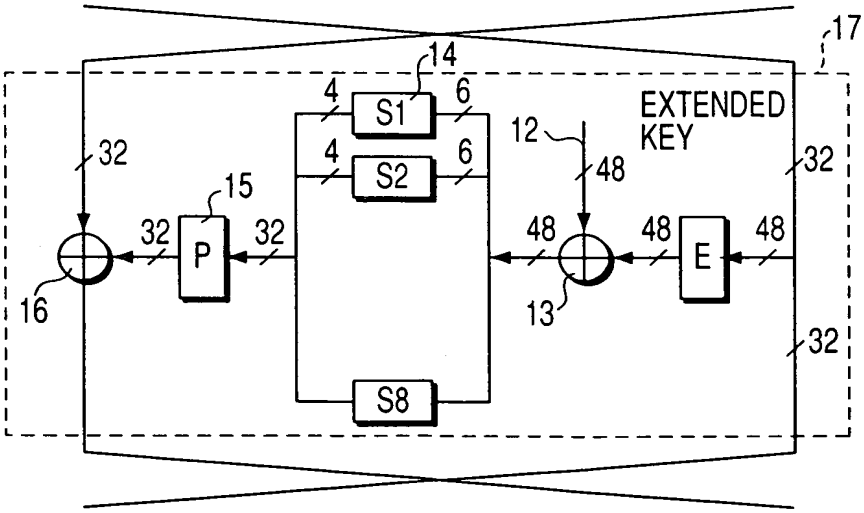


FIG. 2
PRIOR ART

FIG. 3

TABLE OF S1

14,	4,	13,	1,	2,	15,	11,	8,	3,	10,	6,	12,	5,	9,	0,	7,
0,	15,	7,	4,	14,	2,	13,	1,	10,	6,	12,	11,	9,	5,	3,	8,
4,	1,	14,	8,	13,	6,	2,	11,	15,	12,	9,	7,	3,	10,	5,	0,
15,	12,	8,	2,	4,	9,	1,	7,	5,	11,	3,	14,	10,	0,	6,	13,

FIG. 4

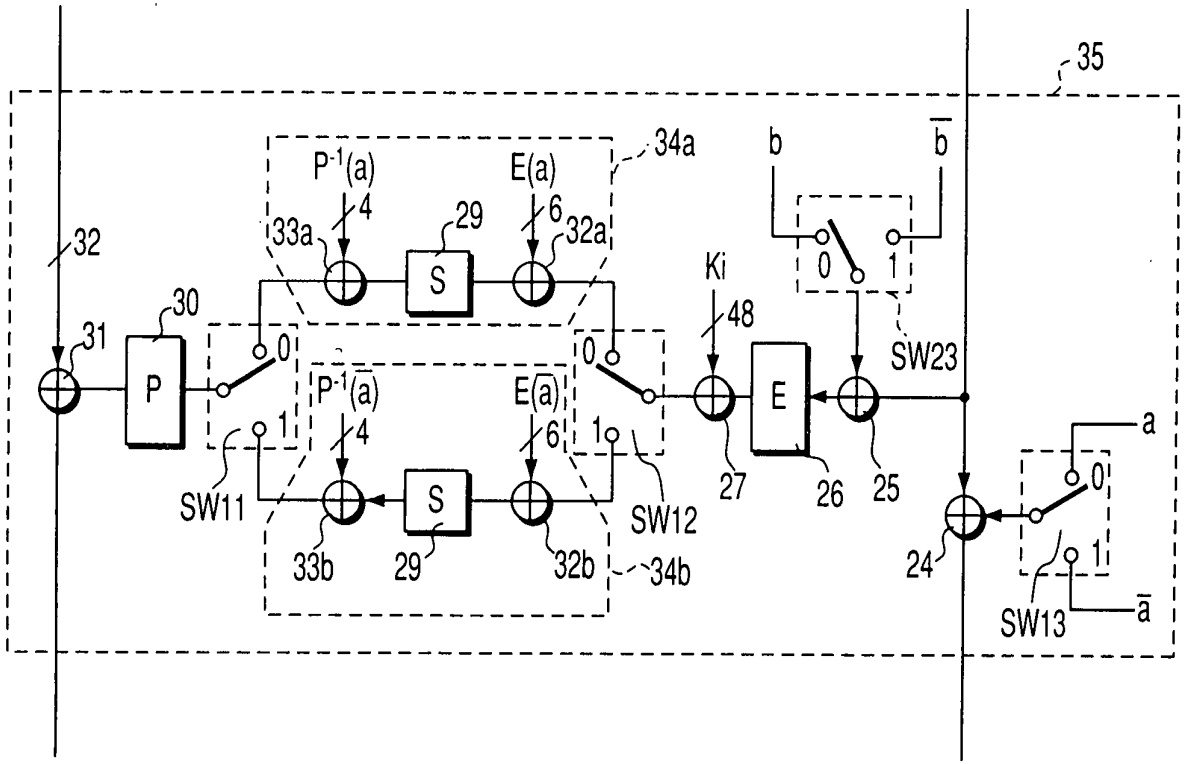


FIG. 5A

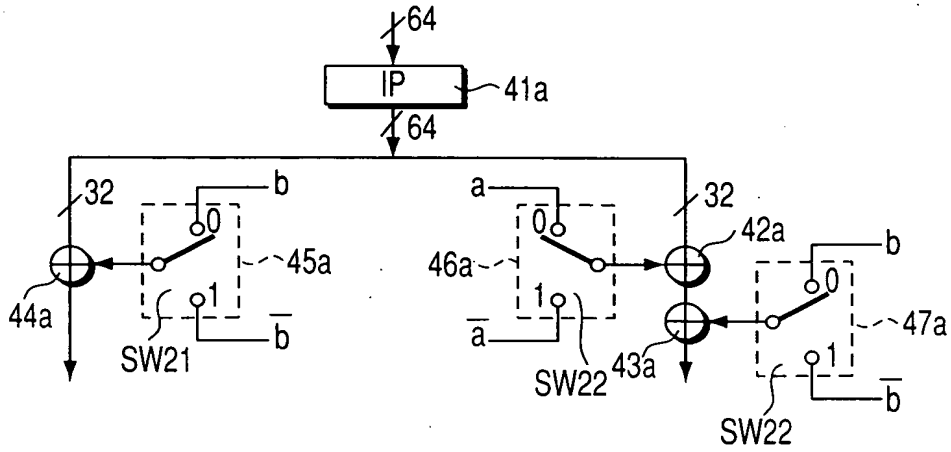


FIG. 5B

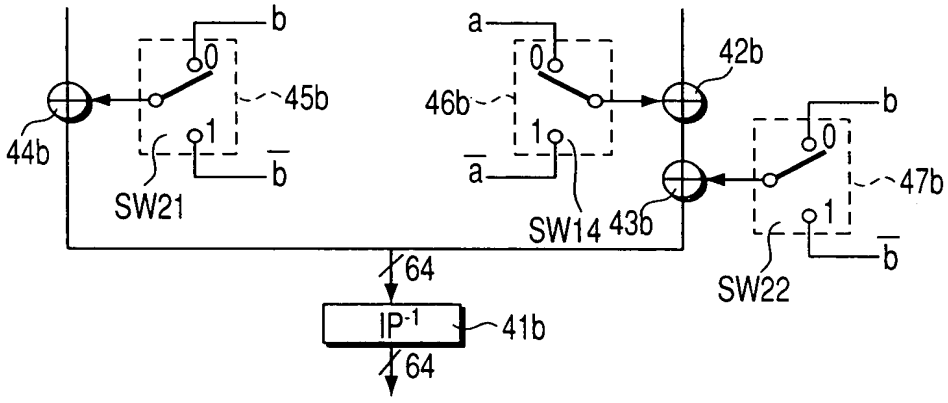


FIG. 6

TABLE OF EXPANSION E

32,	1,	2,	3,	4,	5,
4,	5,	6,	7,	8,	9,
8,	9,	10,	11,	12,	13,
12,	13,	14,	15,	16,	17,
16,	17,	18,	19,	20,	21,
20,	21,	22,	23,	24,	25,
24,	25,	26,	27,	28,	29,
28,	29,	30,	31,	32,	1,

FIG. 7

TABLE OF PERMUTATION P

16,	7,	20,	21,	29,	12,	28,	17,	1,	15,	23,	26,	5,	18,	31,	10,
2,	8,	24,	14,	32,	27,	3,	9,	19,	13,	30,	6,	22,	11,	4,	25,

OUTPUT OF CONCEALED S1 WHEN INPUT CORRESPONDS TO (000000, 000001,···,111111) IN CASE OF MASK a

8	11	14	2	13	4	0	15	1	7	11	1	6	13	5	8	15	12	4	9	3	10	9	
3	10	0	7	14	12	6	2	5	4	2	8	1	7	11	11	16	14	4	13	8	9	7	6
13	10	9	1	14	0	12	12	0	5	15	2	5	3	10	15	3							

FIG. 8

TABLE OF MASK $\bar{a}$ (BIT INVERSION OF a)

12	0	5	12	10	13	0	10	15	3	3	15	1	14	6	5	2	9	8	6	7	2	11	1
9	4	4	8	14	7	13	11	10	1	3	9	3	1	8	15	5	12	6	5	12	6	11	3
0	7	10	2	9	14	4	8	14	0	15	11	2	13	1	4	7							

FIG. 9

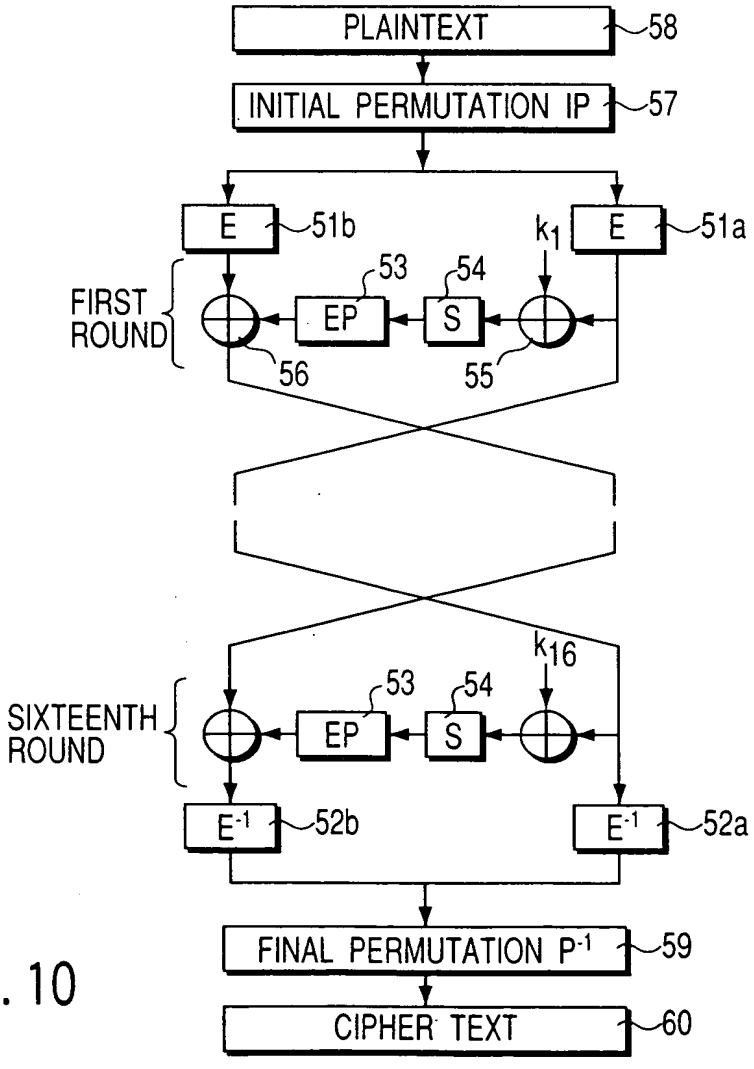


FIG. 10

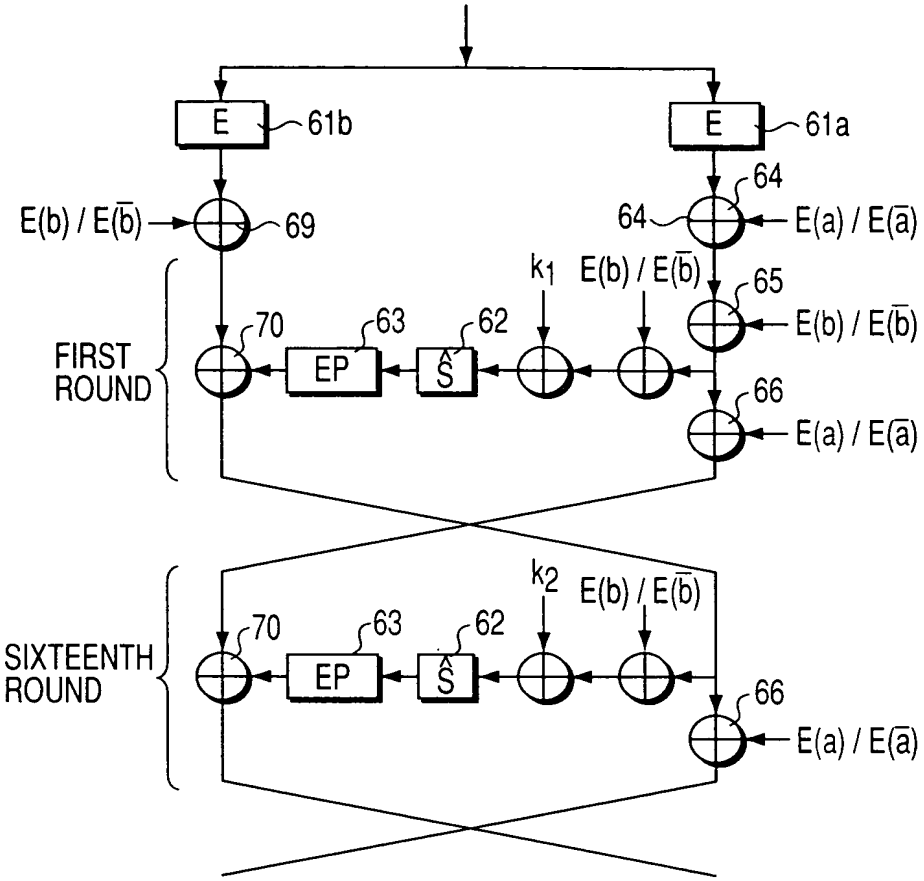


FIG. 11

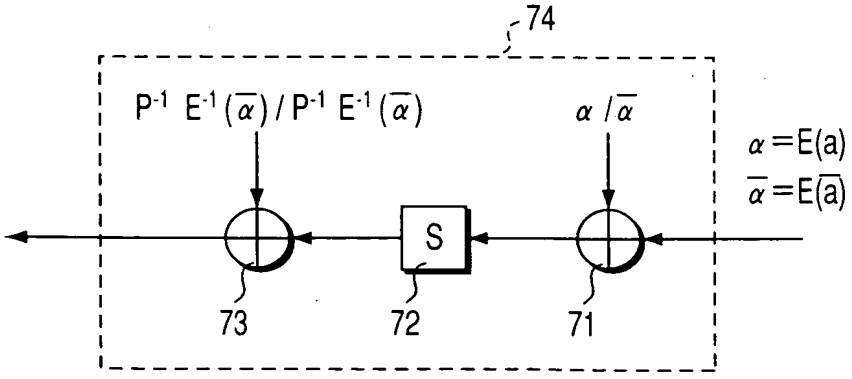


FIG. 12

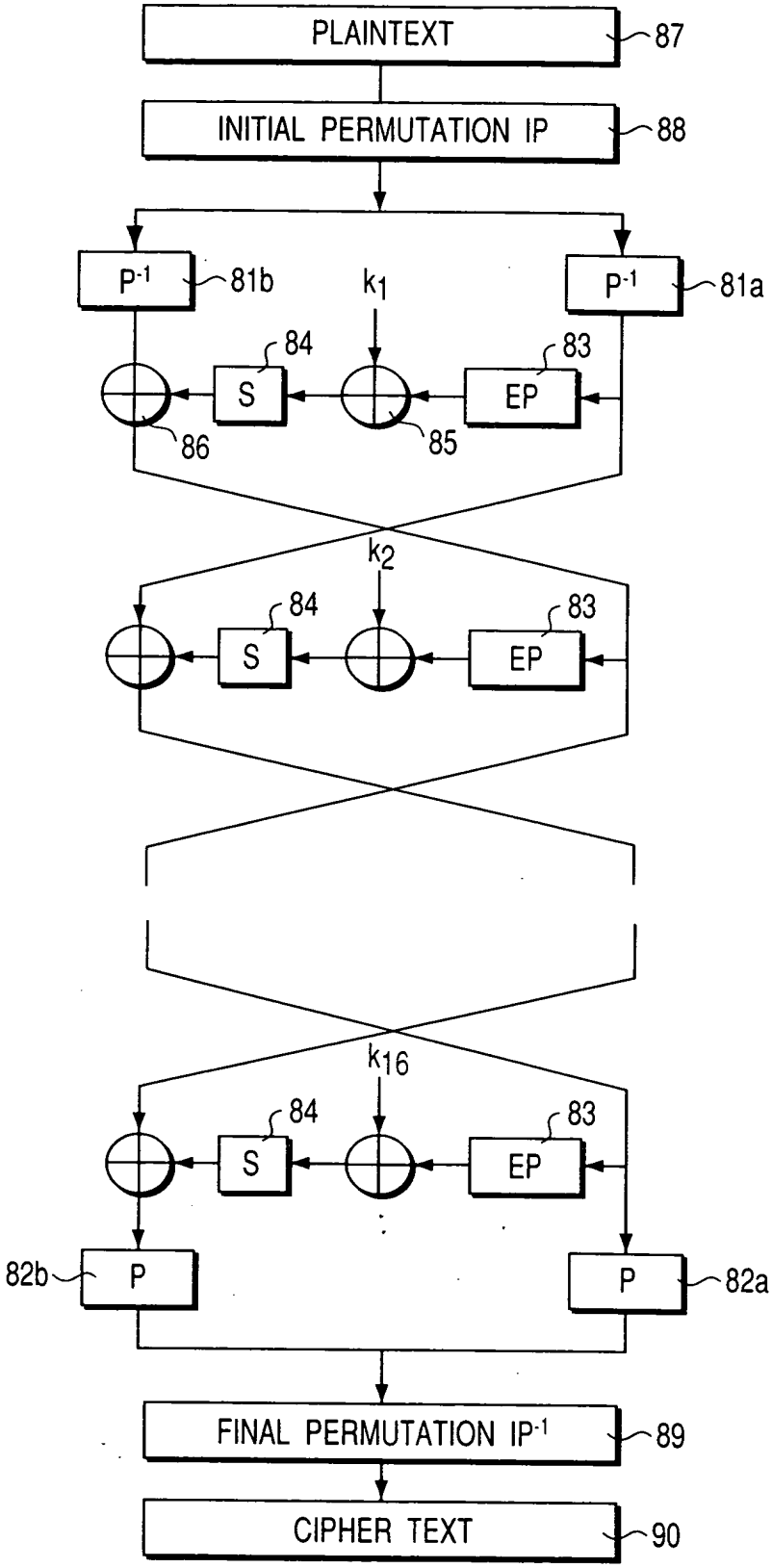


FIG. 13

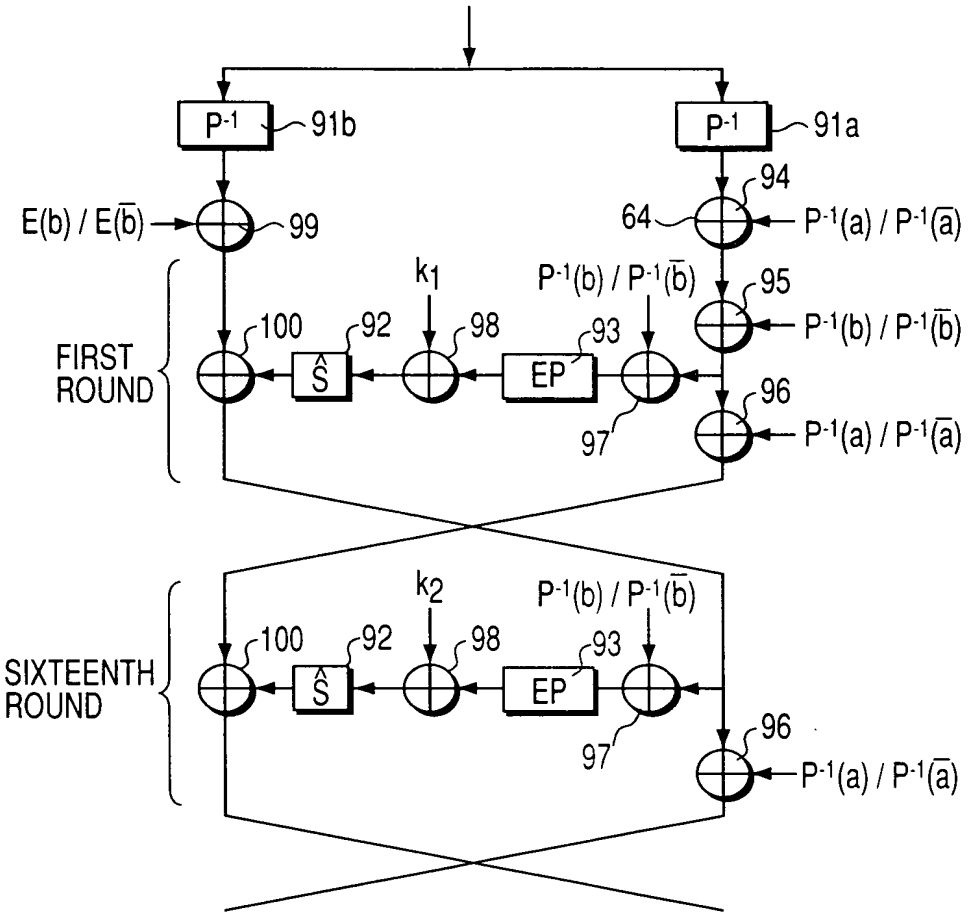


FIG. 14

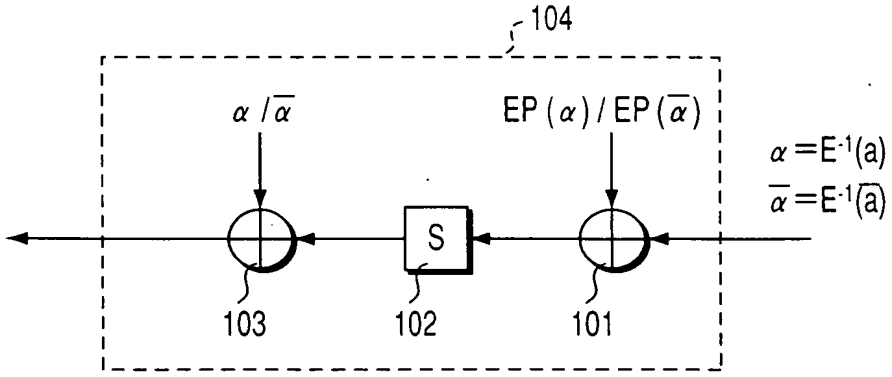


FIG. 15

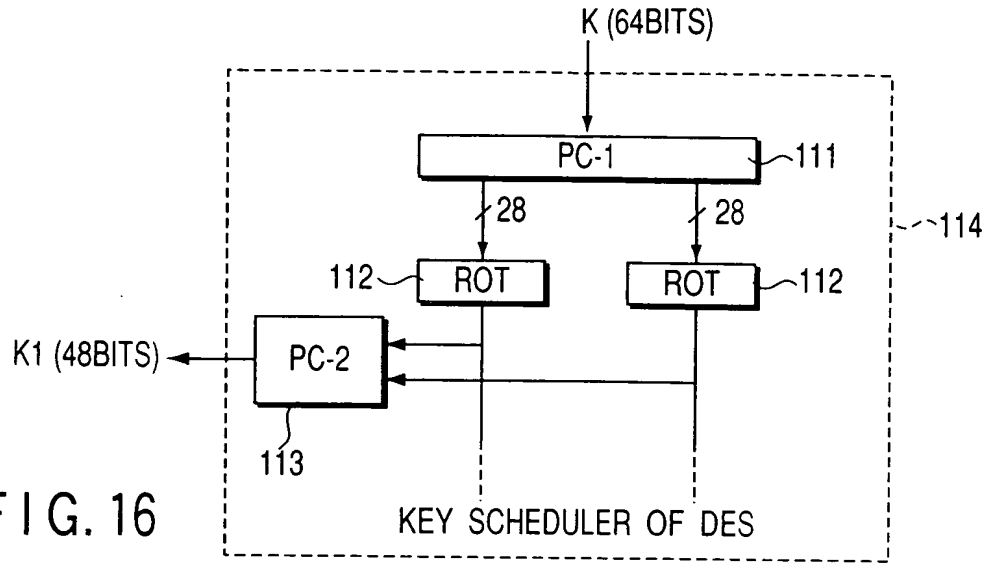


FIG. 16

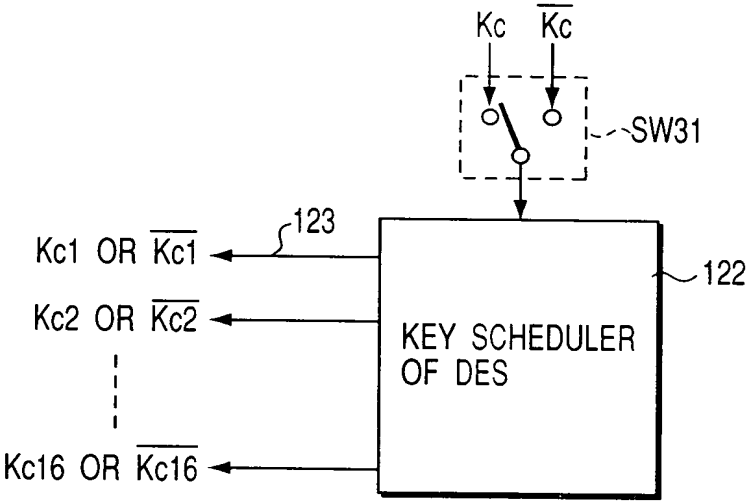


FIG. 17

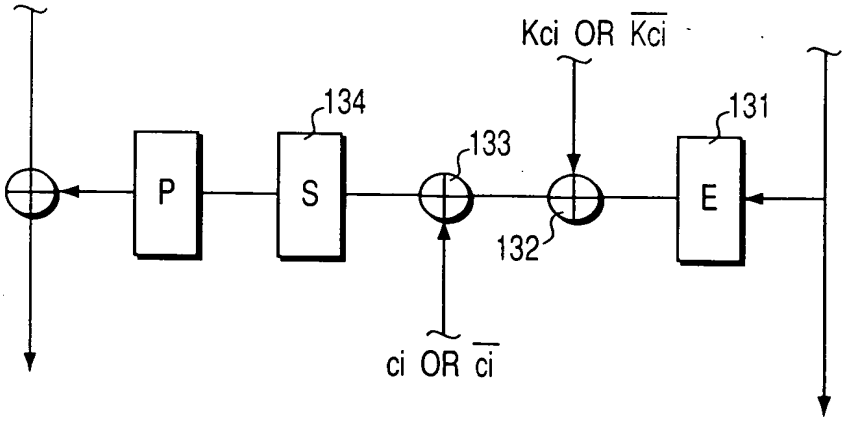


FIG. 18

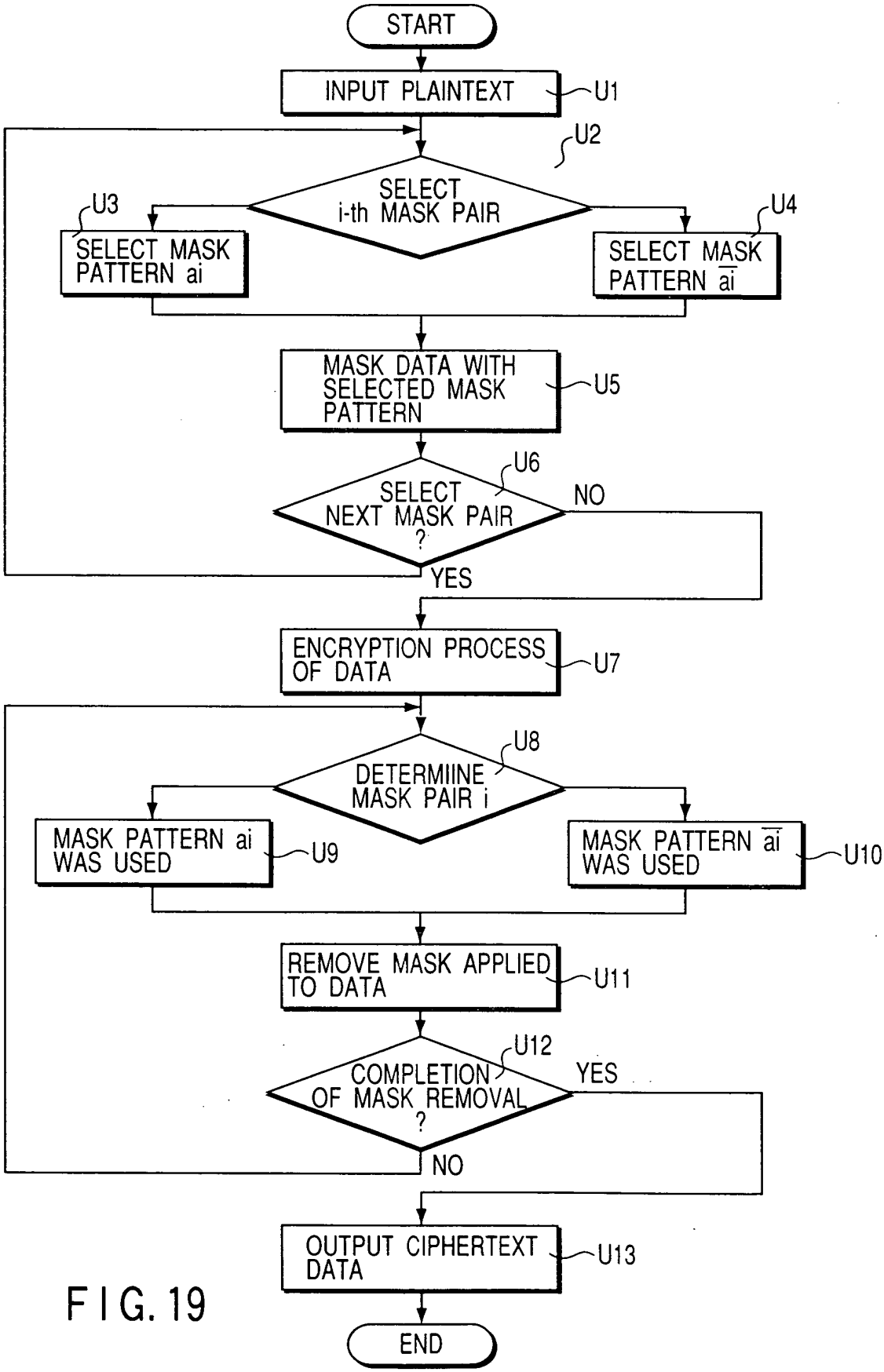


FIG. 19

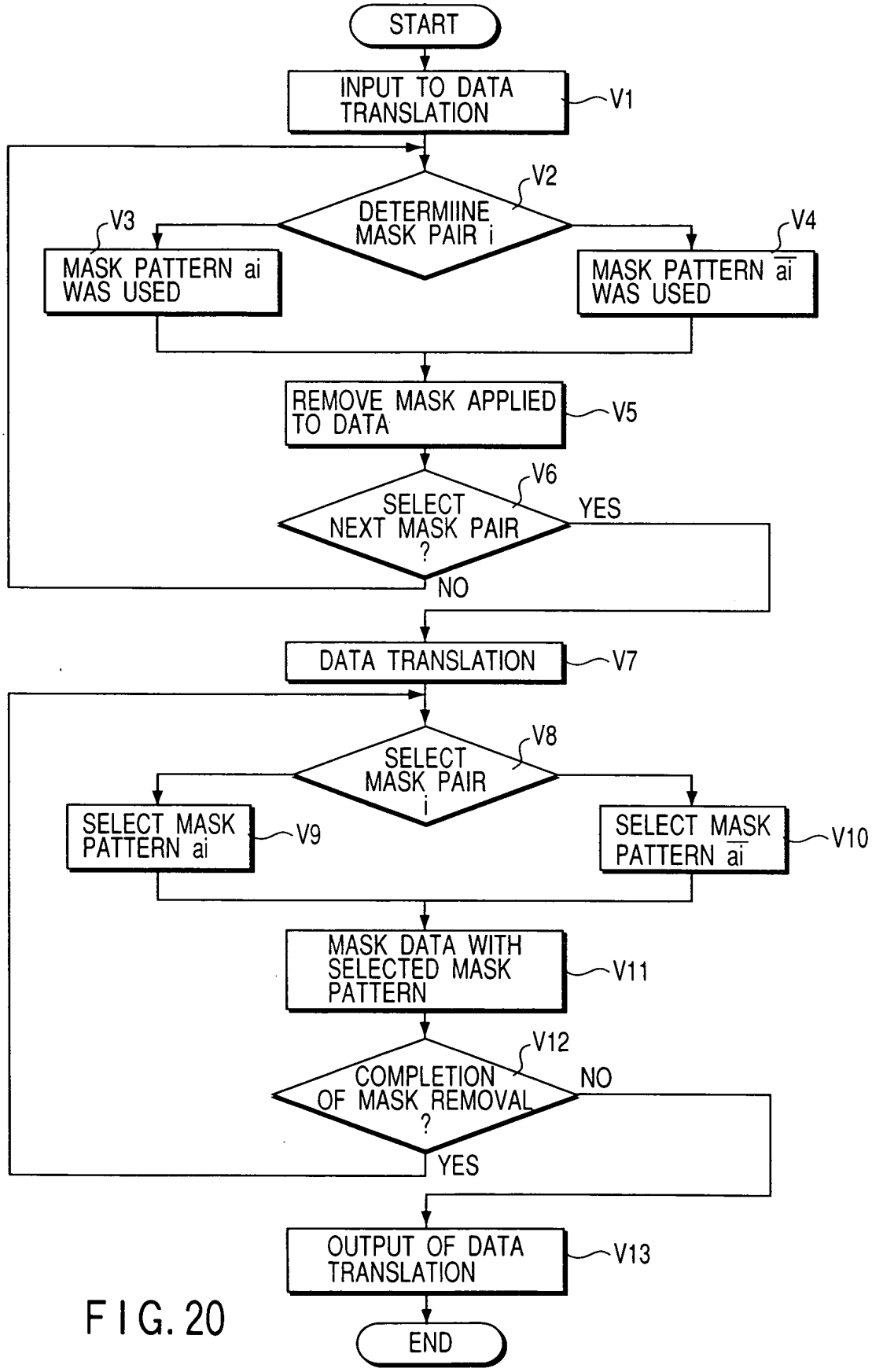


FIG. 20

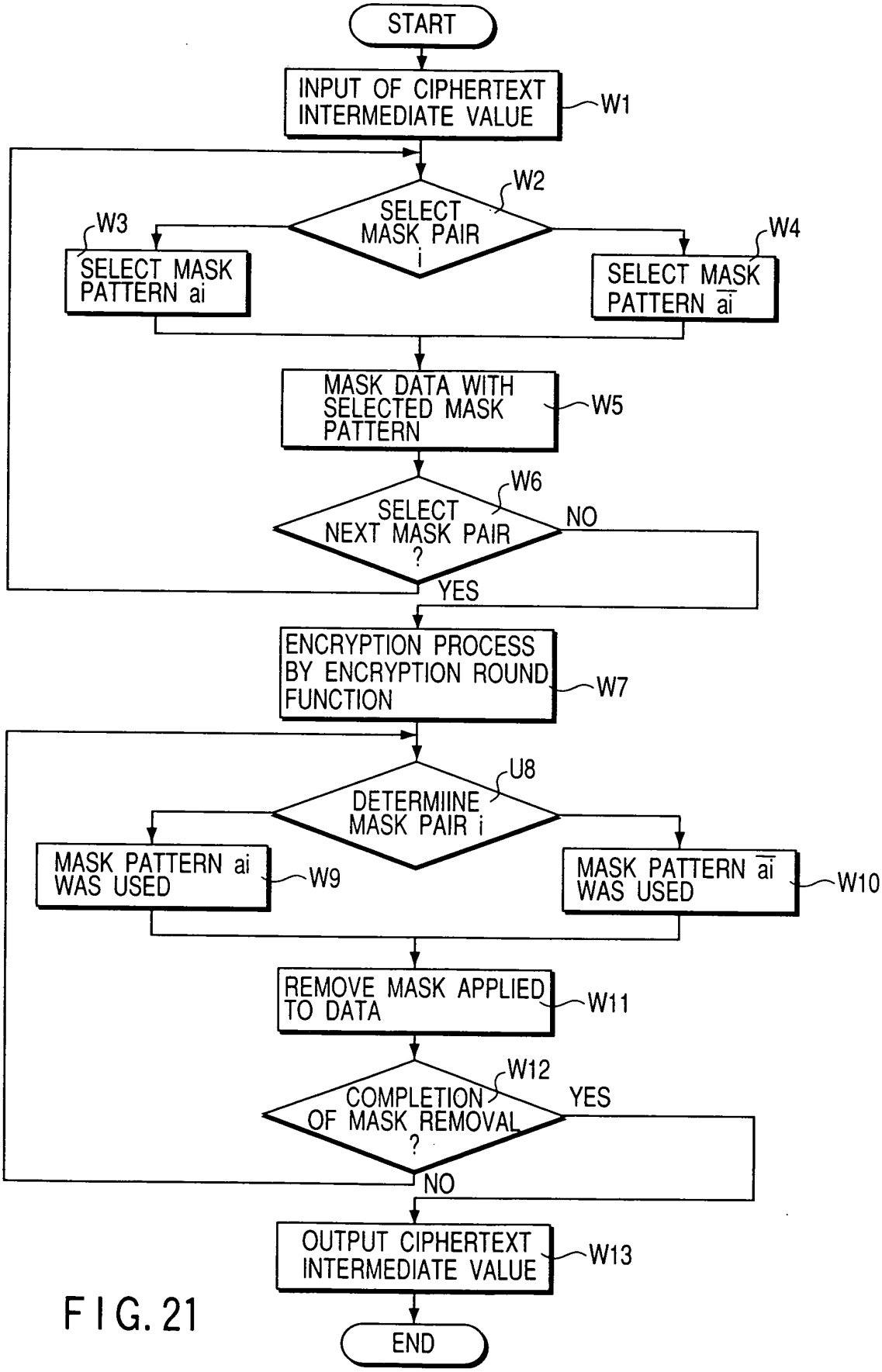
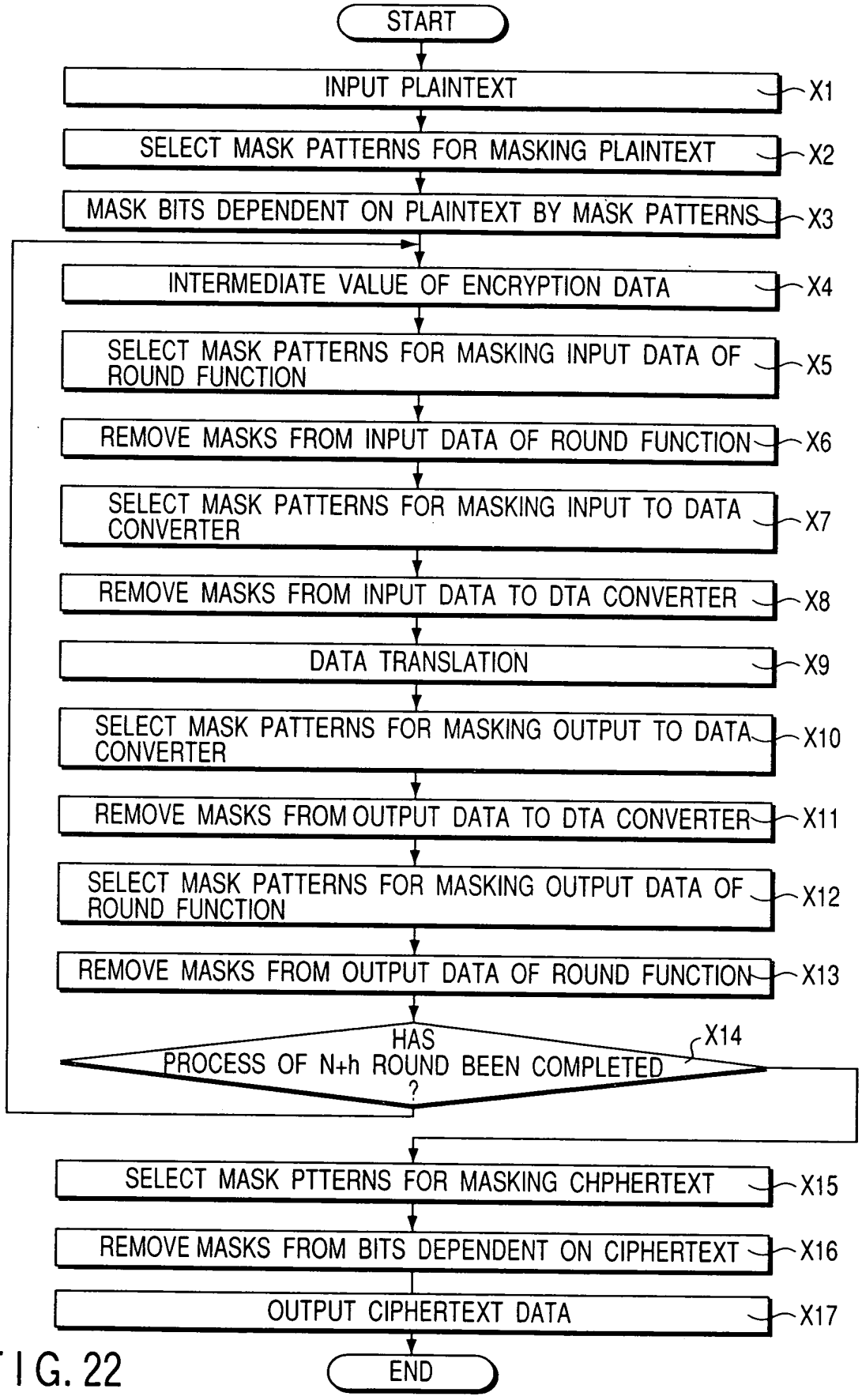


FIG. 21



F I G. 22

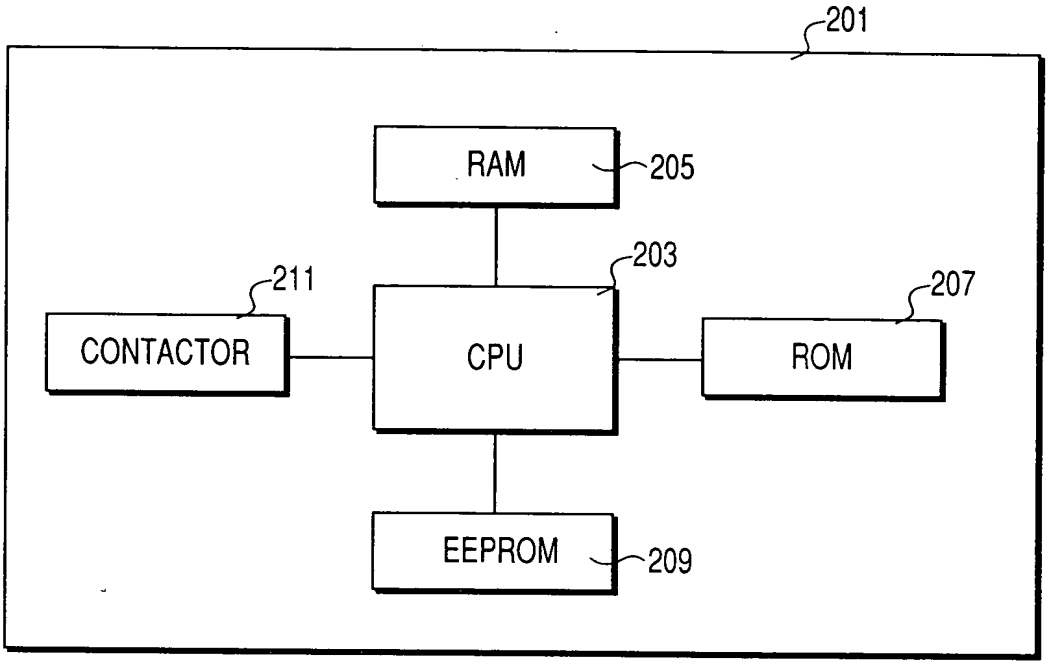


FIG. 23